

Installation DNS Bind on VM dns-shared

#INSTALLATION BIND AND BIND-UTILS

- `sudo yum install bind bind-utils`

#CREATION NAMED.CONF

- `sudo nano /etc/named.conf`

#CONTENT OF NAMED.CONF

- ```
//
// named.conf
//
// Provided by Red Hat bind package to configure the ISC BIND named(8) DNS
// server as a caching only nameserver (as a localhost DNS resolver only).
//
// See /usr/share/doc/bind*/sample/ for example named configuration
options {
listen-on port 53 { 127.0.0.1; 192.168.10.200; 10.0.0.11; };
allow-query { localhost; 192.168.10.0/24; 10.0.0.0/24; };
directory "/var/named";
dump-file "/var/named/data/cache_dump.db";
statistics-file "/var/named/data/named_stats.txt";
memstatistics-file "/var/named/data/named_mem_stats.txt";
allow-transfer { none; };

recursion yes;
dnssec-enable yes;
dnssec-validation yes;
dnssec-lookaside auto;

forwarders {
8.8.8.8;
8.8.4.4;
};

};
logging {
channel default_debug {
file "data/named.run";
severity dynamic;
};
};
zone "." IN {
```

```

type hint;
file "named.ca";
};
zone "winu.fr" IN {
type master;
file "forward.winu.fr";
allow-update { none; };
};
zone "10.168.192.in-addr.arpa" IN {
type master;
file "reverse.winu.fr";
allow-update { none; };
};
include "/etc/named.rfc1912.zones";
include "/etc/named.root.key";

```

#### - #CREATION FORWARD.WINU.FR FILE

- `sudo nano /var/named/forward.winu.fr`

#### -#CONTENT OF FORWARD.WINU.FR

\$TTL 1D

@ IN SOA masterdns.winu.fr. root.winu.fr. (

0 ; serial

1D ; refresh

1H ; retry

1W ; expire

3H ) ; minimum

IN NS vmdev-masterdns.winu.fr.

IN A 192.168.10.200

vmdev-masterdns IN A 192.168.10.200

vmdev-master IN A 192.168.10.20

vmdev-worker1 IN A 192.168.10.21

vmdev-worker2 IN A 192.168.10.22

vmdev-devregistry IN A 192.168.10.24

vmdev-devregistrysec IN A 192.168.10.23

```
jenkins IN A 192.168.10.240
vault IN A 192.168.10.240
k8sdashboard IN A 192.168.10.240
grafana IN A 192.168.10.240
prd IN A 192.168.10.240
vmdev-jump IN A 192.168.10.100
vmdev-squid IN A 192.168.10.5
dev-winu.artifact.winu.fr. IN A 10.0.0.14
jfrog.winu.fr. IN A 10.0.0.14
```

#### **-#CREATE REVERSE.WINU.FR FILE**

- `sudo nano /var/named/reverse.winu.fr`

#### **-#CONTENT REVERSE.WINU.FR FILE**

```
$TTL 1D
@ IN SOA vmdev-masterdns.winu.fr. root.winu.fr. (
0 ; serial
1D ; refresh
1H ; retry
1W ; expire
3H) ; minimum
IN NS vmdev-masterdns.winu.fr.
200 IN PTR vmdev-masterdns.winu.fr.
20 IN PTR vmdev-master.winu.fr.
21 IN PTR vmdev-worker1.winu.fr.
22 IN PTR vmdev-worker2.winu.fr.
23 IN PTR vmdev-devregistry.winu.fr.
24 IN PTR vmdev-devregistrysec.winu.fr.
240 IN PTR jenkins.winu.fr.
240 IN PTR vault.winu.fr.
240 IN PTR k8sdashboard.winu.fr.
```

240 IN PTR grafana.winu.fr.

240 IN PTR prd.winu.fr.

100 IN PTR vmdev-jump.winu.fr.

5 IN PTR vmdev-squid.winu.fr.

## **-#CREATE NAMED.CA FILE**

- `sudo nano /var/named/named.ca`

## **-#CONTENT NAMED.CA FILE**

```
• ; <<>> DiG 9.18.20 <<>> -4 +tcp +norec +nostats @d.root-servers.net
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 47286
;; flags: qr aa; QUERY: 1, ANSWER: 13, AUTHORITY: 0, ADDITIONAL: 27
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags;; udp: 1450
;; QUESTION SECTION:
; IN NS
;; ANSWER SECTION:
. 518400 IN NS a.root-servers.net.
. 518400 IN NS b.root-servers.net.
. 518400 IN NS c.root-servers.net.
. 518400 IN NS d.root-servers.net.
. 518400 IN NS e.root-servers.net.
. 518400 IN NS f.root-servers.net.
. 518400 IN NS g.root-servers.net.
. 518400 IN NS h.root-servers.net.
. 518400 IN NS i.root-servers.net.
. 518400 IN NS j.root-servers.net.
. 518400 IN NS k.root-servers.net.
. 518400 IN NS l.root-servers.net.
. 518400 IN NS m.root-servers.net.
;; ADDITIONAL SECTION:
a.root-servers.net. 518400 IN A 198.41.0.4
b.root-servers.net. 518400 IN A 170.247.170.2
c.root-servers.net. 518400 IN A 192.33.4.12
d.root-servers.net. 518400 IN A 199.7.91.13
e.root-servers.net. 518400 IN A 192.203.230.10
f.root-servers.net. 518400 IN A 192.5.5.241
```

```

g.root-servers.net. 518400 IN A 192.112.36.4
h.root-servers.net. 518400 IN A 198.97.190.53
i.root-servers.net. 518400 IN A 192.36.148.17
j.root-servers.net. 518400 IN A 192.58.128.30
k.root-servers.net. 518400 IN A 193.0.14.129
l.root-servers.net. 518400 IN A 199.7.83.42
m.root-servers.net. 518400 IN A 202.12.27.33
a.root-servers.net. 518400 IN AAAA 2001:503:ba3e::2:30
b.root-servers.net. 518400 IN AAAA 2801:1b8:10::b
c.root-servers.net. 518400 IN AAAA 2001:500:2::c
d.root-servers.net. 518400 IN AAAA 2001:500:2d::d
e.root-servers.net. 518400 IN AAAA 2001:500:a8::e
f.root-servers.net. 518400 IN AAAA 2001:500:2f::f
g.root-servers.net. 518400 IN AAAA 2001:500:12::d0d
h.root-servers.net. 518400 IN AAAA 2001:500:1::53
i.root-servers.net. 518400 IN AAAA 2001:7fe::53
j.root-servers.net. 518400 IN AAAA 2001:503:c27::2:30
k.root-servers.net. 518400 IN AAAA 2001:7fd::1
l.root-servers.net. 518400 IN AAAA 2001:500:9f::42
m.root-servers.net. 518400 IN AAAA 2001:dc3::35

```

#### **-#CREATE NAMED.LOOPBACK FILE**

- `sudo nano /var/named/named.loopback`

#### **-#CONTENT OF NAMED.LOOPBACK**

\$TTL 1D

@ IN SOA localhost. root.localhost. (

2 ; serial

1D ; refresh

1H ; retry

1W ; expire

3H ) ; minimum

IN NS localhost.

1 IN PTR localhost.

#### **-#CREATE NAMED.EMPTY FILE**

- `sudo nano /var/named/named.empty`

#### **-#CONTENT OF NAMED.EMPTY**

\$TTL 1D

@ IN SOA localhost. root.localhost. (

2 ; serial

1D ; refresh

1H ; retry

1W ; expire

3H ) ; minimum

IN NS localhost.

#### **-#CREATE NAMED.LOCALHOST FILE**

- `sudo nano /var/named/named.localhost`

#### **-#CONTENT OF NAMED.LOCALHOST**

\$TTL 1D

@ IN SOA localhost. root.localhost. (

2 ; serial

1D ; refresh

1H ; retry

1W ; expire

3H ) ; minimum

IN NS localhost.

IN A 127.0.0.1

#### **-#SET CORRECT PERMISSIONS**

- `sudo chown root:named /var/named/named.*`
- `sudo chmod 644 /var/named/named.*`

#### **-#VALIDATE CONFIGURATION AND ZONE FILES**

- `sudo named-checkconf`
- `sudo named-checkzone winu.fr /var/named/forward.winu.fr`
- `sudo named-checkzone 10.168.192.in-addr.arpa /var/named/reverse.winu.fr`

#### **-#START THE DNS SERVICE**

- `sudo systemctl enable named`
- `sudo systemctl start named`

#### **-#CHECK FOR ERRORS**

- `sudo systemctl status named`